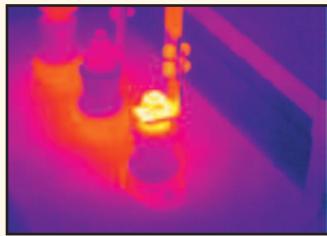
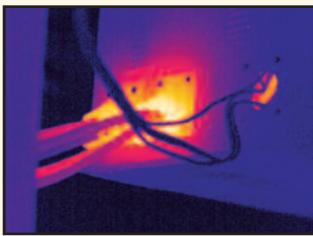


**HEAT SPY®**

# NEW! Wahl 150 & 170 Series Imagers

TWO YEAR  
2  
WARRANTYIP54  
COMPLIANT

Find problems quickly, easily, and safely with the Wahl 150 and 170 Series

**Instantly find Hot or Cold Spots  
Withstands 2 Meter Drop Test!**

IR / Visible Light / Picture-in-Picture / SpyLite™

Touch Screen for easy access of menu functions

Optional Telephoto and Wide Angle Lenses

60Hz\* or 9Hz Frame Rate

**Model 170:** Ultra High Thermal Sensitivity  $\leq 0.04^{\circ}\text{C}$ 

Resolution: 384 x 288 with 110, 592 Pixels

**Model 150:** Thermal Sensitivity  $\leq 0.05^{\circ}\text{C}$ 

Resolution: 160 x 120 with 19, 200 Pixels

- **SpyLite™** - only temperatures over or under preset point shown thermally over visible image
- **Picture-in-Picture** - all temperatures shown thermally over visible image
- **Large 3.6" LCD Touch Screen Display** - for quick and easy use of menu functions
- **Dual LED "Head Lights"** - easily light subject even in low light conditions
- **Ergonomic design** - with easy grip, trigger and hand strap for easy scanning
- **Thermal - Visible - PIP - SpyLite Image Save**
- **Thermal - Visible - Video Recording**
- **"z" models - 60 Hz or "a" models - 9 Hz** (Factory Set) ("a" models for use outside USA)
- **Laser Aiming** - pinpoints hot or cold spots
- **Field of View: 25° x 19°**
- **3.2 Megapixel CMOS Sensor**

- **Every Pixel Calibrated**
- **Engineered to withstand 2 meter Drop Test** - assures reliability and durability
- **Optional Lenses** - increase functionality  
Telephoto: 2X and 4X\*\*  
Wideangle: 0.5X and Ultra Wideangle: 0.25X\*\*
- **Real Time Image and Data transfer** - through Ethernet to Windows PC to manage settings and files, or view live video output
- **Bluetooth** - Wireless transfer of files to PC, or connect headset to record and play back verbal image annotation (Earphone/RS232)
- **Advanced Heat Spy Report and Analysis Software** - included for quick and professional reports with precise image and temperature analysis on any point in an image.

Unlimited Phone Support with every Heat Spy!

**Including  
SPY-CARE™**

The FIRST No-Fault warranty plan in the industry is INCLUDED with your purchase!

We will repair or replace your camera for two years, for any reason - even if it's your fault - no questions asked!

Also includes:

FREE Training, FREE Phone Support,  
FREE Annual Lifetime Recalibration, Inspection, and Firmware Upgrades.  
(Excludes Battery and Micro SD Card)  
See Spy-Care flyer at [www.wahlheatspy.com](http://www.wahlheatspy.com) for more details.)

\*Export Licensing Fee on 60Hz models may be required for your country, subject to US Government approval. No Export License required on 9Hz models. \*\*Model 170 only.

Heat Spy® is a registered trademark of Wahl Instruments, Inc.

[www.wahlheatspy.com](http://www.wahlheatspy.com)

Specifications subject to change without notice

**ISO 9001:2008**  
CERTIFIED QUALITY  
MANAGEMENT SYSTEM

Palmer Wahl • 234 Old Weaverville Road • Asheville • North Carolina • 28804  
[sales@palmerwahl.com](mailto:sales@palmerwahl.com) • Phone: (800) 421-2853 • FAX: (828) 658-0728

PW1283  
03/15

# 150 • 170 Series Thermal Imagers Specifications

Model Number	a150	z150	a170	z170	Model Number	a150	z150	a170	z170						
Frame Rate	9Hz	60Hz*	9Hz	60Hz*	Frame Rate	9Hz	60Hz*	9Hz	60Hz*						
<b>Image Performance</b>															
<b>Detector Type</b>	Uncooled Microbolometer Focal Plane Array (FPA)														
<b>Detector Resolution</b>	<b>160 x 120</b>		<b>384 x 288</b>												
<b>Number of Pixels</b>	<b>19,200</b>		<b>110,592</b>												
<b>Field of View (FOV)</b>	<b>25° x 19°</b>														
<b>Spatial Resolution (IFOV)</b>	<b>2.73 mrad</b>		<b>1.37 mrad**</b>												
<b>Thermal Sensitivity</b>	<b>≤ 0.05 @ 30°C</b>		<b>≤ 0.04 @ 30°C</b> Ultra High Sensitivity												
<b>Focus Range</b>	0.5 m to ∞														
<b>Focus Type</b>	Manual														
<b>IR Digital Zoom</b>	X2 or X4														
<b>Spectral Range</b>	8 - 14µm														
<b>Visible Light Camera</b>	3.2 Megapixel CMOS Sensor, Dual LED Head Lights														
<b>Telephoto Lens Option</b> Factory Upgrade	2X for 12.5° x 9.5° FOV														
	NA		4X for 6.25° x 4.75° FOV												
<b>Wide Angle Lens Option</b> Factory Upgrade	0.5X for 50° x 38° FOV														
	NA		0.25X for 100° x 76° FOV												
<b>Image Display</b>															
<b>Thermal/Visible Light Image</b>	Fast switch between Thermal, Visible Light, or Picture-in-Picture <sup>1</sup> or SpyLite <sup>2</sup>														
<b>LCD Display</b>	High Resolution 3.6" Color LCD Touch Screen, 640 x 480														
<b>Image Control</b>	<b>11 Display Color Palettes:</b> Ironbow; Negative Grayscale; Positive Grayscale; Amber; Hot Metal; Cool Metal; Rainbow Green-Red; Rainbow Blue-Red; Rainbow Black-White; High Contrast Blue-Yellow; and High Contrast Violet-White <b>Image Adjustment:</b> Auto Ranging / Manual Level and Span / Adjustable Display Brightness and Contrast Control														
<b>Measurement Analysis</b>															
<b>Measurement Range</b>	-4° to 662°F (-20° to 350°C) User Selectable Temperature Extension to 1202°F (650°C)														
<b>Measurement Accuracy</b>	Greater of ±2% of reading or ±2°C. Instrument is not calibrated below -10°C.														
<b>Measurement Correction</b>	Auto / Manual														
<b>Measurement Mode</b>	Spots, Areas, Lines, Isotherms, Delta T, Alarms (Multiple Audible and Visible)														
<b># of Measurement Spots</b>	Up to 5 Moveable Spots, including Hot and Cold Seeking														
<b># of Measurement Areas</b>	Up to 5 Movable and Sizeable Areas (Max, Min and Avg Temperatures)														
<b># of Measurement Lines</b>	Up to 2 Moveable Lines, 1 Vertical, 1 Horizontal; Image Temperature Profile Lines														
<b>Emissivity Correction</b>	Adjustable from 0.01 to 1.00 with Built-in Emissivity Table														
<b>Reflected Temperature Compensation</b>	Auto with manual reflected Temperature Adjustment														
<b>Atmospheric Transmission Correction</b>	Automatic Correction according to user input Object Distance, Humidity, and Temperature														
<b>Alarm</b>	High and Low Temperature Audible and Visible Alarm; Isotherm Visible Alarm														
<b>Temperature Scale</b>	User Selectable: °C, °F, and K														
<b>User Settings</b>	Date/Time, Temperature Unit, Brightness/Contrast, LCD Brightness and 8 Languages: English; Spanish; German; Portuguese; Korean; Russian; Simplified Chinese; Traditional Chinese														

\* Export Licensing Fee on 60Hz models may be required for your country, subject to US Government approval. No Export License required on 9Hz models.

\*\* 384 x 288 is not directly convertible to 640 x 480 imager display. Image is displayed as a 320 x 240 image. Full 384 x 288 resolution image, (1.09 mrad), downloads to computer.

<sup>1</sup> Picture-in-Picture - all temperatures shown thermally over visible image

<sup>2</sup> SpyLite - only temperatures over or under preset point shown thermally over visible image

Heat Spy® is a registered trademark of Wahl Instruments, Inc.

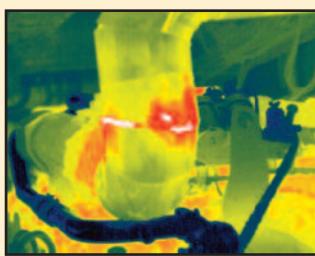
Specifications subject to  
change without notice

**Heat Spy Thermal Imagers are available from:**





# NEW! Wahl CHIEF INSPECTOR



Find problems quickly, easily, and safely with the Wahl z70

**Highest level of Resolution  
Designed for the Professional**

## BEST-IN-CLASS!

The **a70** and **z70** models include a **384 x 288 array** with **110,592 pixels** — **44% more pixels** than **320 x 240** thermal imagers with **76,800 pixels**.

Fully calibrated, high resolution camera captures clear, sharp images!

Easily load images to an **iPad®** using an SD adapter. The thermal images can be imported and stored in the regular photo application found on the **iPad®**, or used with a picture application like **iPhoto®**. The images can then be shared with other applications on the **iPad®**, offering the flexibility of easy to prepare reports.

**Two temperature modes** allow you to switch between the ranges of -4° to 356°F (-20° to 180°C) or 212° to 1112°F (100° to 600°C) to select the temperature range required for your application.

**Temperature readings are always accurate.** Quick stabilization circuitry enables the camera to acclimate to sudden ambient temperature changes in just a few minutes, compared to 30 - 45 minutes with other cameras.

**Simultaneously captures** both a thermal and visible light picture, or either individually, with one pull of the trigger. View or download images to included **Wahl Report Writer** software, or an **iPad®**, with selectable voice recording, up to 45 seconds per picture.

**Thermal line analysis** allows the user to select a target of interest as a temperature reference point, and show a relative comparison as a percentage between the target temperature and the temperatures in the surrounding area. This enables the user to quickly find potential problem areas in need of further attention.

The **z70** frame rate is 30Hz. The **a70** features a 9Hz frame rate for export without license restrictions.

**Including**  
**SPY-CARE™**

The FIRST No-Fault warranty plan in the industry is INCLUDED with your purchase!

We will repair or replace your camera for two years, for any reason - even if it's your fault - no questions asked!

Also includes:

FREE Training, FREE Phone Support,  
FREE Annual lifetime recalibration, inspection, and firmware upgrades. (Excludes Battery and SD Card, see Spy-Care flyer on our website for more details.)

Heat Spy® is a registered trademark of Wahl Instruments, Inc.  
iPad® and iPhoto® are registered trademarks of Apple.

Specifications subject to change without notice

Digital version of catalog may differ from printed version.

[www.wahlheatspy.com](http://www.wahlheatspy.com)  
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sales@palmerwahl.com • Phone: (800) 421-2853 • FAX: (828) 658-0728

PW1282  
May 2013 Rev A

## a70 • z70 CHIEF INSPECTOR Specifications

Model Number	a70	z70	Model Number	a70	z70
Frame Rate	9Hz	30Hz*			
<b>Sensor Info</b>					
Detector	Uncooled Microbolometer Focal Plane Array (EPA)		Removable Storage	2GB SD / Time Stamped	
Detector Resolution	384 x 288		Storage Mode	Manual Single Image Save or Programmable Auto Save to SD Card	
Spectral Range	8 - 14μm		File Format (Thermal)	JPEG plus Temperature in 14 bit data	
Thermal Sensitivity	≤ 0.06 @ 30°C		File Format/Size (Visible)	JPEG / 100K (Typical Value)	
<b>Image Performance</b>					
LCD Display	High Resolution 3.5" Color LCD Screen, 640 x 480		Voice Annotation	Maximum 45 seconds per image	
Visible Light Camera	1.3 Megapixel CMOS Sensor		Text Annotation	NA	
<b>Lens Parameter</b>					
Field of View	25° x 19°				
Focus Range	0.1 m to ∞ and beyond		Laser Pointer	Class 2, < 1mW / 635nm, Red	
Focus Type	Manual				
Spatial Resolution	1.37 mrad**				
<b>Measurement Analysis</b>					
Measurement Range	-4° to 356°F (-20° to 180°C) or 212° to 1112°F (100° to 600°C) Low/High Temperature User Switchable:		Report Analysis Software	Yes	
Measurement Accuracy	Greater of ±2% of reading or ±2°C Instrument is not calibrated below -10°C.		Video Output	User Selectable PAL and NTSC	
Image Control	11 Display Color Palettes: Ironbow; Negative Grayscale; Positive Grayscale; Amber; Hot Metal; Cool Metal; Rainbow Green-Red; Rainbow Blue-Red; Rainbow Black-White; High Contrast Blue-Yellow; and High Contrast Violet-White		Freeze Frame/Save Image	Freeze Frame and Save Image, Thermal and/or Visible to SD Card	
	Image Adjustment: Auto Ranging / Manual Level and Span / Adjustable Display Brightness Control				
Measurement Correction	Auto Correction of Microbolometer with Adjustable Time Interval or Push Button Manual				
Measurement Mode	Spots, Areas, Lines, Isotherms, Delta T, Alarms (Multiple Audible and Visible)		Ambient Operating Temperature	5° to 122°F (-15° to 50°C)	
# of Measurement Spots	1 Hot, 1 Cold, plus 2 Adjustable		Storage Temperature	-4° to 140°F (-20° to 60°C)	
# of Measurement Areas	Up to 3 Movable and Sizeable Areas (Max, Min and Avg Temperatures)		Humidity	≤ 90% non-condensing	
# of Measurement Lines	Up to 2 Moveable Lines, 1 Vertical, 1 Horizontal; Image Temperature Profile Lines		IP Rating	IP 54	
T Reflect	Manual Adjustment				
T Correct	Manual Adjustment		Power	1 Rechargeable Lithium Ion Battery	
IR Digital Zoom	X 2 or X 4		Operating Time	2 Batteries provide approx 4 hours operation	
Thermal/Visible Image	Toggle between Thermal and Visible Light		Power Save Mode	Selectable Time Interval Auto Sleep to save battery, Auto Shut Off	
Alarm	High and Low Temperature Audible and Visible Alarm; Isotherm Visible Alarm		Charging System	External AC Battery Charger included; In Camera Charging with optional AC/DC Battery Charger; 12V DC Car Charger	
Temperature Scale	User Selectable: °C, °F, and K				
User Settings	Date/Time, Temperature Unit, Brightness/Contrast, LCD Brightness, and 11 Languages: English; Spanish; French; German; Italian; Portuguese; Korean; Japanese; Russian; Simplified Chinese; and Traditional Chinese		General Info		
			Housing	Impact Resistant Molded Plastic and Wrist Strap	
Emissivity Range	Adjustable from 0.01 to 1.00 with Built-in Emissivity Table		Mounting	Hand Held with Tripod mounting / 1/4"-20 Thread	
			Dimensions	Width: 4.5 in. (115mm) x Length: 5.9 in. (150mm) x Height: 9 in. (230mm)	
			Weight (w/o battery)	1.65 lbs (0.75 Kg)	
			Software Compatibility	Microsoft Windows 2000, Windows XP, Vista, and Windows 7	
			Included Accessories	Spy-Care, Carrying Case; Wrist Strap; Lens Cap; 2 Rechargeable Lithium Ion Batteries; External AC Battery Charger; Video Out Cable; Heat Spy Report & Analysis Software; SD Card/Reader; User Manual.	
			Optional Accessories	NIST Traceable Certificate of Conformance; Extended Warranty; Auxiliary Charging Kit with: 12V DC Car Charger, AC/DC Power Supply/Charger and International Plugs	
<b>Safety Certificates</b>					
			Shock Test	25G, IEC68-2-29	
			Vibration Test	2G, IEC68-2-6	
			Immunity Tests	Yes	
			Emission Limits	Yes	

\*Export Licensing Fee on 30Hz models may be required for your country, subject to US Government approval. No Export License required on 9Hz models.

\*\* 384 x 288 is not directly convertible to 640 x 480 imager display. Image is displayed as a 320 x 240 image. Full 384 x 288 resolution image, (1.09 mrad), downloads to computer.

Specifications subject to change without notice  
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IP54



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# Wahl<sup>®</sup> HEAT SPY<sup>®</sup>

## z50 INSPECTOR

Designed for the pro, save and export thermal and digital images with easy report writing software.

## z30 DETECTOR

Designed for on the spot routine maintenance inspections.

**First upgradeable camera after purchase.** Maximize scalability by upgrading your camera with up to 15 configurations - *at any time!*

**First user upgradeable camera.** Maximize value by easily upgrading your z30 Detector to a z50 Inspector - *in the field!*

**First extended warranty plan to include** annual recalibration, inspection and firmware upgrades. Maximize performance and *increase the life of your Heat Spy!* (Excludes Battery and SD Card)

### FEATURES

**Upgrade both models** with a High Temperature option, Wide Angle Lens and / or Telephoto Lens - at any time!

**"z" speed at 30 Hertz captures clear, sharp images!**

**Camera acclimates quickly.** Sudden ambient temperature changes won't slow you down!

**Every Pixel is individually calibrated!**

**"Double Vision"** provides simultaneous capture of both a Thermal and Digital picture, and can include up to a 45 second voice recording. (z50 Series only)

**Hands-free flashlight** (optional) screws into camera to brighten dark areas for clear digital pictures. Operates on its own internal battery, enabling longer camera battery life.

**Lease the camera at 0% interest** (Call Customer Service for requirements, USA Customers only)

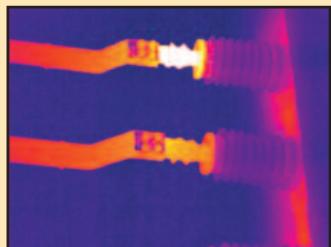
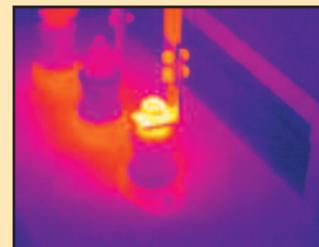
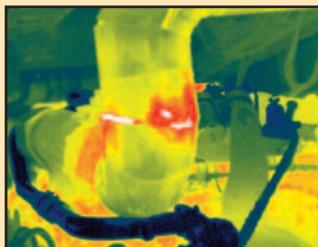
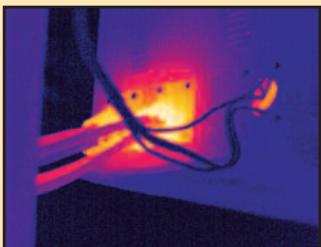
We are so confident that you will love this new camera that we are offering a 48 hour money back guarantee! (USA Customers only)

\*Export Licensing fee on 30Hz models may be required for your country, subject to US Government approval.  
No Export License required on 9Hz models.



**Buy it, you'll like it; 48 hour Money Back Guarantee\***

\* USA Customers only



Find problems quickly, easily, and safely with the Wahl Heat Spy.

<b>APPLICATIONS</b> for many Industries	
Aerospace	
Automotive	
Asphalt & Roofing	
Breweries	
Beverage Processing	
Canning	
Chemical	
Coal & Mineral Mining	
Condition Monitoring	
Confectionery	
Cosmetics	
Dairy Processing	
Electrical	
Energy Audits	
Facilities Management	
Fire Fighting	
Food Processing	
Food Service	
Glass	
Government	
Home Inspection	
HVAC & Irrigation	
Meat Processing	
Mechanical	
Military	
Natural Gas	
Oil & Petroleum	
Petrochemical	
Pharmaceutical	
Pipe, Valve & Fitting	
Plumbing	
Police Search/Rescue	
Poultry Processing	
Power Generation	
Pulp & Paper	
Research & Development	
Plastics	
Rubber	
Sanitary Processing	
Semiconductor	
Steel & Iron	
Telecommunications	
Test & Measurement	
Verification	
Water & Wastewater	
Weatherization	
<i>and more!</i>	
<b>TWO YEAR 2 WARRANTY</b>	
<b>IP54</b>	

Specifications	<b>z30 Series Detector</b>	<b>z50 Series Inspector</b>
<b>UPGRADE Model</b>	<b>Upgrade to z50 Inspector - in the Field!</b>	<b>Full Feature Series</b>
<b>Measurement Range</b>	-4° to 356°F (-20° to 180°C)	
<b>UPGRADE to High Temperature</b>	212° to 1112°F (100° to 600°C) (User Upgradeable in the Field)	
<b>Temperature Accuracy</b>	Greater of ± 2% of reading or ± 2°C. Instrument is not calibrated below -10°C.	
<b>Temperature Scale</b>	User Selectable °C, °F, and K	
<b>Number of Measurement Spots</b>	1 Hot Seeking, 1 Cold Seeking, 2 Adjustable	
<b>Field of View</b>	17.5° x 13°	
<b>Detector Resolution</b>	160 X 120	
<b>Spectral Range</b>	8-14µm	
<b>Thermal Sensitivity</b>	≤ 0.1°C @ 30°C	
<b>LCD Display</b>	High Resolution 3.5" Color LCD Screen, 640 x 480	
<b>IR Digital Zoom</b>	X 2	
<b>Frame Rate</b>	"Z" models - 30Hz* (may be subject to export licensing fee)	
<b>Display Color Palettes</b>	<b>4 Color Palettes:</b> Ironbow; Negative Grayscale; Rainbow Blue-Red; High Contrast Blue-Yellow (Additional Palettes with Upgrade)	<b>11 Color Palettes:</b> Ironbow; Negative Grayscale; Positive Grayscale; Amber; Hot Metal; Cool Metal; Rainbow Green-Red; Rainbow Blue-Red; Rainbow Black-White; High Contrast Blue-Yellow; and High Contrast Violet-White
<b>Image Adjustment</b>	Auto Ranging / Manual Level and Span / Adjustable Display Brightness Control	
<b>Languages</b>	<b>11 Languages:</b> English; Spanish; French; German; Italian; Portuguese; Korean; Japanese; Russian; Simplified Chinese; and Traditional Chinese	
<b>Laser Pointer</b>	Class 2 < 1mW / 635nm, Red	
<b>Auto Correction</b>	Auto Correction of Microbolometer with Adjustable Time Interval or Push Button Manual	
<b>Measurement Mode</b>	Spots, Delta T, High Temp Alarm (Audible/Visible) (Additional capabilities with Upgrade)	Spots, Areas, Lines, Isotherms, Delta T, Alarms (Multiple Audible/Visible)
<b>Number of Measurement Areas</b>	(Available with Upgrade)	Up to 3 Movable & Sizeable Areas (Max, Min & Avg)
<b>Emissivity Correction</b>	Adjustable from 0.01 to 1.00 (Built-in Emissivity Table with Upgrade)	Adjustable from 0.01 to 1.00 with Built-in Emissivity Table
<b>T Reflect</b>	Manual Adjustment	
<b>T Correct</b>	(Available with Upgrade)	Manual Adjustment
<b>Visible Light Camera</b>	(Available with Upgrade)	1.3 Megapixel CMOS Sensor
<b>Thermal/Visible Light Image</b>	(Available with Upgrade)	Toggle between Thermal and Visible Light
<b>Alarm</b>	High Temperature Audible and Visible Alarm (Additional functions with Upgrade)	High Temperature Audible and Visible Alarm Isotherm Visible Alarm
<b>UPGRADE Optics</b>	Wide Angle (35° x 26° FOV), and/or Telephoto (8.75° x 6.5° FOV) (Factory Upgradeable options)	
<b>Report Analysis Software</b>	(Available with Upgrade)	Yes
<b>Image Storage</b>	(Available with Upgrade)	2GB SD / Time Stamped
<b>Freeze Frame/Save Image</b>	Freeze Frame only (Additional capabilities with Upgrade)	Freeze Frame and Save Image, Thermal and/or Visible to SD Card
<b>Storage Mode</b>	(Available with Upgrade)	Manual Single Image Save or Programmable Auto Save to SD Card
<b>Voice Annotation</b>	(Available with Upgrade)	Maximum 45s per image
<b>File Format (Thermal)</b>	(Available with Upgrade)	JPEG plus Temperature in 14 bit data
<b>File Format / Size (Visible)</b>	(Available with Upgrade)	JPEG / 60K (Typical value)
<b>Video Output</b>	User Selectable PAL and NTSC	
<b>Dimensions/Weight w/o battery</b>	Width: 4.5 in. (115mm) x Length: 5.9 in. (150mm) x Height: 9 in. (230mm) / 1.65 lbs (0.75 Kg)	
<b>Power / Operating Time</b>	1 Rechargeable Lithium Ion Battery / 2 Batteries provided, approx. 3 hours operation per battery	
<b>Charging System</b>	External AC Battery Charger included; In Camera Charging with optional AC/DC Battery Charger	
<b>Ambient Operating Temperature</b>	5° to 122°F (-15° to 50°C)	
<b>Storage Temperature</b>	-4° to 140°F (-20° to 60°C)	
<b>Humidity/IP Rating</b>	≤ 90% non-condensing / IP54	
<b>Included Accessories</b>	Carrying Case; Wrist Strap; Lens Cap; 2 Rechargeable Lithium Ion Batteries; External AC Battery Charger; Video Out Cable; Report & Analysis Software; SD Card & Reader; User Manual; Spy-Care(30 Series upgrade)	
<b>Options</b>	NIST Traceable Certificate of Conformance; Extended Warranty; Auxiliary Charging Kit with: 12V DC Car Charger, AC/DC Power Supply/Charger and International Plugs	

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[www.wahlheatspy.com](http://www.wahlheatspy.com)

Specifications subject to change without notice

PW1280z  
October 2011 Rev C

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## a50 INSPECTOR

Designed for the pro, save and export thermal and digital images with easy report writing software.

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### FEATURES

**Upgrade both models** with a High Temperature option, Wide Angle Lens and / or Telephoto Lens - at any time!

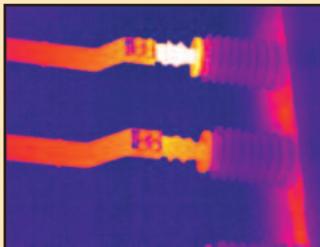
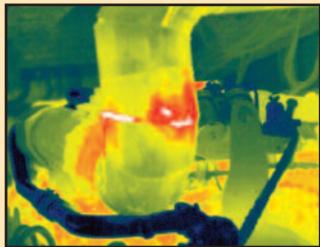
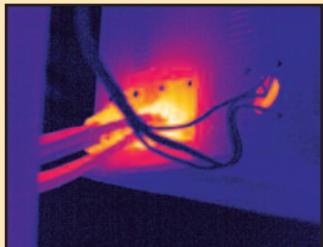
**"a" speed at 9 Hertz captures clear, sharp images!**

**Camera acclimates quickly.** Sudden ambient temperature changes won't slow you down!

**Every Pixel is individually calibrated!**

**"Double Vision"** provides simultaneous capture of both a Thermal and Digital picture, and can include up to a 45 second voice recording. (z50 Series only)

**Hands-free flashlight** (optional) screws into camera to brighten dark areas for clear digital pictures. Operates on its own internal battery, enabling longer camera battery life.



Find problems quickly, easily, and safely with the Wahl Heat Spy.

<b>APPLICATIONS</b> for many Industries	
Aerospace	
Automotive	
Asphalt & Roofing	
Breweries	
Beverage Processing	
Canning	
Chemical	
Coal & Mineral Mining	
Condition Monitoring	
Confectionery	
Cosmetics	
Dairy Processing	
Electrical	
Energy Audits	
Facilities Management	
Fire Fighting	
Food Processing	
Food Service	
Glass	
Government	
Home Inspection	
HVAC & Irrigation	
Meat Processing	
Mechanical	
Military	
Natural Gas	
Oil & Petroleum	
Petrochemical	
Pharmaceutical	
Pipe, Valve & Fitting	
Plumbing	
Police Search/Rescue	
Poultry Processing	
Power Generation	
Pulp & Paper	
Research & Development	
Plastics	
Rubber	
Sanitary Processing	
Semiconductor	
Steel & Iron	
Telecommunications	
Test & Measurement	
Verification	
Water & Wastewater	
Weatherization	
<i>and more!</i>	
<b>TWO YEAR 2 WARRANTY</b>	
<b>IP54</b>	

Specifications	a30 Series Detector	a50 Series Inspector
UPGRADE Model	Upgrade to a50 Inspector - in the Field!	Full Feature Series
Measurement Range	-4° to 356°F (-20° to 180°C)	
UPGRADE to High Temperature	212° to 1112°F (100° to 600°C) (User Upgradeable in the Field)	
Temperature Accuracy	Greater of ± 2% of reading or ± 2°C. Instrument is not calibrated below -10°C.	
Temperature Scale	User Selectable °C, °F, and K	
Number of Measurement Spots	1 Hot Seeking, 1 Cold Seeking, 2 Adjustable	
Field of View	17.5° x 13°	
Detector Resolution	160 X 120	
Spectral Range	8-14µm	
Thermal Sensitivity	0.1°C @ 30°C	
LCD Display	High Resolution 3.5" Color LCD Screen, 640 x 480	
IR Digital Zoom	X 2	
Frame Rate	"a" models - 9Hz* (no export licensing fee)	
Display Color Palettes	<b>4 Color Palettes:</b> Ironbow; Negative Grayscale; Rainbow Blue-Red; High Contrast Blue-Yellow (Additional Palettes with Upgrade)	<b>11 Color Palettes:</b> Ironbow; Negative Grayscale; Positive Grayscale; Amber; Hot Metal; Cool Metal; Rainbow Green-Red; Rainbow Blue-Red; Rainbow Black-White; High Contrast Blue-Yellow; and High Contrast Violet-White
Image Adjustment	Auto Ranging / Manual Level and Span / Adjustable Display Brightness Control	
Languages	<b>11 Languages:</b> English; Spanish; French; German; Italian; Portuguese; Korean; Japanese; Russian; Simplified Chinese; and Traditional Chinese	
Laser Pointer	Class 2 <1mW / 635nm, Red	
Auto Correction	Auto Correction of Microbolometer with Adjustable Time Interval or Push Button Manual	
Measurement Mode	Spots, Delta T, High Temp Alarm (Audible/Visible) (Additional functions with Upgrade)	Spots, Areas, Lines, Isotherms, Delta T, Alarms (Multiple Audible/Visible)
Number of Measurement Areas	(Available with Upgrade)	Up to 3 Movable & Sizeable Areas (Max, Min & Avg)
Emissivity Correction	Adjustable from 0.01 to 1.00 (Built-in Emissivity Table with Upgrade)	Adjustable from 0.01 to 1.00 with Built-in Emissivity Table
T Reflect	Manual Adjustment	
T Correct	(Available with Upgrade)	Manual Adjustment
Visible Light Camera	(Available with Upgrade)	1.3 Megapixel CMOS Sensor
Thermal/Visible Light Image	(Available with Upgrade)	Toggle between Thermal and Visible Light
Alarm	High Temperature Audible and Visible Alarm (Additional functions with Upgrade)	High Temperature Audible and Visible Alarm Isotherm Visible Alarm
UPGRADE Optics	Wide Angle (35° x 26° FOV), and/or Telephoto (8.75° x 6.5° FOV) (Factory Upgradeable options)	
Report Analysis Software	(Available with Upgrade)	Yes
Image Storage	(Available with Upgrade)	2GB SD / Time Stamped
Freeze Frame/Save Image	Freeze Frame only (Additional functions with Upgrade)	Freeze Frame and Save Image, Thermal and/or Visible to SD Card
Storage Mode	(Available with Upgrade)	Manual Single Image Save or Programmable Auto Save to SD Card
Voice Annotation	(Available with Upgrade)	Maximum 45s per image
File Format (Thermal)	(Available with Upgrade)	JPEG plus Temperature in 14 bit data
File Format / Size (Visible)	(Available with Upgrade)	JPEG / 60K (Typical value)
Video Output	User Selectable PAL and NTSC	
Dimensions/Weight w/o battery	Width: 4.5 in. (115mm) x Length: 5.9 in. (150mm) x Height: 9 in. (230mm) / 1.65 lbs (0.75 Kg)	
Power / Operating Time	1 Rechargeable Lithium Ion Battery / 2 Batteries provided, approx. 3 hours operation per battery	
Charging System	External AC Battery Charger included; In Camera Charging with optional AC/DC Battery Charger	
Ambient Operating Temperature	5° to 122°F (-15° to 50°C)	
Storage Temperature	-4° to 140°F (-20° to 60°C)	
Humidity/IP Rating	≤ 90% non-condensing / IP54	
Included Accessories	Carrying Case; Wrist Strap; Lens Cap; 2 Rechargeable Lithium Ion Batteries; External AC Battery Charger; Video Out Cable; Report/Analysis Software; SD Card & Reader; User Manual; Spy-Care(30 Series upgrade)	
Options	NIST Traceable Certificate of Conformance; Extended Warranty; Auxiliary Charging Kit with: 12V DC Car Charger, AC/DC Power Supply/Charger and International Plugs	

Heat Spy® is a registered trademark of Wahl Instruments, Inc.

[www.wahlheatspy.com](http://www.wahlheatspy.com)

Specifications subject to change without notice

PW1280a  
October 2011 Rev C

Palmer Wahl • 234 Old Weaverville Road • Asheville • North Carolina • 28804  
[sales@palmerwahl.com](mailto:sales@palmerwahl.com) • Phone: (800) 421-2853 • FAX: (828) 658-0728

*Announcing*

# SPY-CARE™

**THE FIRST  
NO-FAULT  
THERMAL  
IMAGER  
WARRANTY  
IN THE  
INDUSTRY**



Repaired or Replaced  
FREE for TWO years,  
for ANY reason.\*



Investigate at [wahlheatspy.com](http://wahlheatspy.com)  
and see what you've been missing.



**PALMER** **Wahl**  
INSTRUMENTATION GROUP

800-421-2853

[sales@palmerwahl.com](mailto:sales@palmerwahl.com)

\* See details on page 2

# SPY-CARE™

Make the most of your new thermal imaging camera with our new SPY-CARE™ Program.

## THE FIRST NO-FAULT THERMAL IMAGER WARRANTY - REPAIRED OR REPLACED FREE FOR TWO YEARS, FOR ANY REASON.

The Industry's FIRST No-Fault Warranty now comes with each **Heat Spy 50 Series Inspector** sold. SPY-CARE™ is 2 year NO-FAULT warranty protection. If your Heat Spy Inspector is damaged, Wahl will repair or replace your camera FREE. If you drop it from a 20 ft ladder, if it falls into a swimming pool, or if you back over it with a truck - any unintentional damage - Wahl will fix or replace your camera for FREE. This protection is for the duration of the warranty period of two years from the original purchase date. Get unlimited repairs and one replacement camera (if camera cannot be repaired) during the two year warranty period - a \$3,495.00 value!

Effective July 16, 2012 SPY-CARE™ is included on all a50 or z50 Inspector Series Heat Spy Thermal Imaging cameras. SPY-CARE™ covers units sold worldwide, and does not include shipping and handling charges. Customer pays shipping both ways. Customers outside the USA are required to pay export licensing fee, if applicable. SPY-CARE™ covers only the camera, and does not cover any included or additional accessories, including but not limited to batteries, lenses or SD cards. SPY-CARE™ does not cover the 30 Series camera which is covered by the standard warranty.

SPY-CARE™ does not cover any intentional damage, such as disassembly. Intentional damage will void any warranty coverage.

### FREE Lifetime Recalibration and Firmware Updates on 50 Series

FREE ANNUAL Lifetime Standard Calibration of your **Heat Spy 50 Series Inspector** is included with your purchase – a savings of up to \$250 for each calibration. Contact us to obtain an RMA number for returning your Heat Spy Inspector to Wahl. We will calibrate your Heat Spy and install any new firmware updates at no charge.

\*Free Recalibration of wide angle or telephoto lenses is not included in this offer. Please mention any additional lenses when requesting an RMA, as there is an additional charge for their calibration. This will ensure your Heat Spy is properly calibrated to your specific lenses. Customer pays shipping both ways.

### Rental Program - Try a Heat Spy in your Facility

Would you like to Rent a Heat Spy Camera or try a Heat Spy in your facility? Wahl offers a Rental plan on **Heat Spy 50 Series Inspector, and 50 Series Detector** Imagers. Experience the power and usefulness of the Heat Spy for your specific application. 100% of the rental charges can be applied toward the purchase of the camera within a year of the rental date. See Rental Agreement for more details.

\*Your Heat Spy rental must be secured with a credit card at full value of camera and accessories.

\*USA and Canada ONLY. Customer pays shipping both ways.

### FREE Competitor Camera Loaner Program

Do you own a thermal imager manufactured by a Wahl competitor that is in for repair? Repairs can be slow, leaving you without an important tool for an extended period of time. Take advantage of Wahl's FREE Competitive Camera Loaner Program. Submit proof of your instrument's return for repair (e.g., RMA paperwork), and Wahl will loan you a **Heat Spy 50 Series Inspector** for use for up to 30 days, FREE. Don't compromise productivity while waiting for slow repairs.

\*USA ONLY. Customer pays shipping both ways. Quantities are limited, and offer is based on availability; subject to credit approval. Loaner camera must be secured by a company credit card and purchase order.

### FREE Thermography Training

Wahl offers free thermography training on a monthly basis at our Asheville, NC, USA facility. This eight hour intensive course will give you the knowledge and skills necessary to interpret thermal images. *Training is available to anyone, whether you own a Heat Spy or not.* Presented by our T/IRT Level II Certified Trainers, this training is invaluable to any potential thermographer.

\*Space is limited and available on a first come, first serve basis. Customer pays own expenses. Visit our website to see our scheduled training dates, or contact us to learn more.

### FREE Emergency Replacement Service

**Heat Spy 50 Series Inspector owners** can rest assured that they will always have a thermal imaging camera on hand. If your Heat Spy is in for repair – and you need it – we will send you a replacement camera to use in the meantime – FREE. You never have to worry about your livelihood or productivity by being without your most useful tool.

\*USA and Canada ONLY. Customer pays shipping both ways.

**Wahl Heat Spy products are available from:**



**HEAT SPY®**  
Investigate at [wahlheatspy.com](http://wahlheatspy.com)  
and see what you've been missing.

Heat Spy® is a registered trademark of Wahl Instruments, Inc.

[www.wahlheatspy.com](http://www.wahlheatspy.com)

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PW1284  
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**Wahl®  
HEAT SPY®**

Investigate at [wahlheatspy.com](http://wahlheatspy.com)  
and see what you've been missing.

**Wahl Heat Spy®  
z Series Thermal Imaging Cameras  
Money Back Guarantee\* (MBG)  
Models z30, z50, z70, z150, & z170**

***“Buy it, you’ll like it; GUARANTEED”!***

**“BUY IT, YOU’LL LIKE IT; GUARANTEED!”**

Wahl believes that if you buy one of the units listed above you will be completely satisfied with the products performance. If not, return the unit in ths case with all of the accessories in “like new” condition within 48 hours of receipt, and we will credit you the full amount of your purchase, no questions asked. (*This includes the cost of the unit, accessories and ground shipping only*) Thus, you can be assured that the thermal imaging camera will perform as expected. If you are not satisfied, contact Wahl to receive an RMA number so you can return the unit at no cost to you. Call 1-800-421-2853 or 828-658-3131.

***“Buy it, you’ll like it; more than GUARANTEED”!***

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[www.wahlheatspy.com](http://www.wahlheatspy.com)



# Wahl<sup>®</sup> HEAT SPY<sup>®</sup>

## Rent the z30, z50 or z70 Thermal Imaging Camera!

Curiosity, budget concerns, or single project? All situations which can be resolved by renting Wahl's Heat Spy Imager!

Thermal Imaging is the best non-invasive method for diagnosing potential problems without damage to property, danger to person, or shutdown of process.

Rental includes **FREE UNLIMITED PHONE SUPPORT**, making it easier than ever to use and/or evaluate the use of a thermal imager for your application.

The camera comes to you ready to use out of the box. We'll deliver it fast so you can get started with your projects. One (1) day minimum rental period allows you to make the most of your time and money, and see what our camera can do for you.

Call and reserve your camera today!

Our Customer Service Department is ready to get you started:  
1-800-421-2853 or 828-658-3131.



**z Series Thermal  
Imagers deliver what  
you need to do the job!**

Model Number	z30 Detector	z50 Inspector	z70 Inspector	plus Wide Angle Lens upgrade <sup>1</sup>	plus Telephoto Lens upgrade <sup>1</sup>	plus High Temperature upgrade <sup>1</sup>
List Price	\$2295.00	\$2995.00	\$4495.00	\$700.00	\$1700.00	\$300.00
Rental	<b>\$50.00/day</b>	<b>\$62.00/day</b>	<b>\$150.00/day</b>	<b>\$12.50/day</b>	<b>\$30.00/day</b>	<b>\$10.00/day</b>
Handling Fee	No handling fee					
Shipping Charges	Customer pays shipping charges both ways					

Terms: One (1) day minimum rental period, **secured by credit card at full value of camera and upgrades**.

**Additional identification may be required to complete transaction.**

Rentals are available in USA & Canada ONLY, subject to approval and availability.

Rental period begins the day the unit is delivered to your door via UPS Next Day Air, and ends the day the unit is delivered to Wahl Instruments by UPS or FedEx UPS Next Day Air, at the customer's risk and expense, in its original box.

**Customer is responsible for payment of shipping charges both ways.** Shipping services can be determined at time of order.

<sup>1</sup> Not available on 70 Series

**Important Note:** All customers must pay per day rental charges for upgrades.

### Wahl Heat Spy<sup>®</sup> Imagers Rent to Own Program

Wahl agrees to allow individuals the opportunity to buy the rental unit at the end of the rental period, or within one year from last rental ending date. Wahl will allow **100% of the rental cost** of the camera and upgrades incurred (if applicable) during the prior 12 months to be applied towards the purchase of the rented camera.

**Calibration Services Available**

(800) 421-2853 • FAX (828) 658-0728 • [www.palmerwahl.com](http://www.palmerwahl.com)



# Wahl Heat Spy® Imager

## z Series Rental Agreement

Please complete and Fax back to 828-658-0728

Name: \_\_\_\_\_ Company: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: (REQUIRED) \_\_\_\_\_

1. Wahl Instruments, Inc. agrees to rent a thermal imaging camera to the person and company named above, for a minimum of 1 calendar day. (USA & Canada only.) Subject to approval and availability.
- 2. Rental will be secured by credit card at full value of camera and accessories. Additional identification may be required to complete transaction.**
3. Rental period begins the day the unit is delivered to your door via UPS Next Day Air, and ends the day the unit is delivered to Wahl Instruments by UPS or FedEx UPS Next Day Air, at the customer's risk and expense, in its original box. **Customer is responsible for payment of shipping charges both ways.** Shipping services can be determined at time of order.
4. During the rental period the customer listed above shall be responsible for:
  - a. The proper storage and protection of the rental unit.
  - b. Any loss or damage to the unit incurred during the rental period at the cost of repairing the unit and/or upgrade accessories up to the full value of rented products. Damage which occurred during shipment must be claimed the same day camera was received.
  - c. Returning the product(s) in the same packaging in which it was received.
5. The customer agrees to not modify, open or dismantle the rental product.
- 6. Rental charges apply to rentals that exceed the agreed upon rental period.**
- 7. All customers must pay per day rental charges for upgrades.**
8. Wahl agrees to allow Company the opportunity to buy rental unit at the end of the rental period, or within one year from last rental ending date. Wahl will allow 100% of the rental cost incurred during the prior 12 months to be applied towards the purchase of the rented camera. (Shipping charges are not included) USA Customers only.

Customer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Requested beginning dates:  
\_\_\_\_\_

Requested ending dates:  
\_\_\_\_\_

Approved beginning dates:  
\_\_\_\_\_

Approved ending dates:  
\_\_\_\_\_

Rental Worksheet				
Model Number	List Price	Rental Price	Number of Rental Days	Rental Charges
<b>z70 Camera</b> _____	\$5995.00	\$175.00/day	x _____	\$ _____
<b>z50 Camera</b> _____	\$2995.00	\$62.00/day	x _____	\$ _____
<b>z30 Camera</b> _____	\$2295.00	\$50.00/day	x _____	\$ _____
<b><sup>1</sup>Wide Angle Lens</b> _____	\$700.00	\$12.50/day	x _____	\$ _____
<b><sup>1</sup>Telephoto Lens</b> _____	\$1700.00	\$30.00/day	x _____	\$ _____
<b><sup>1</sup>High Temperature</b> _____	\$700.00	\$10.00/day	x _____	\$ _____
Total amount secured by credit card	\$ _____		<b>Total Rental Charges</b>	\$ _____

Approval of Wahl Representative:  
\_\_\_\_\_

<sup>1</sup> Not available  
on 70 Series  
<sup>\*</sup>Required

Credit Card Info				
*Credit Card Type	Amex	MasterCard	Visa	Discover
*Company Credit Card #				
*Expiration Date			Security Code*	
*Name on Card				
*Drivers License # and State				

